

What Is Claimed Is

1. An electromagnetic lock comprising:

an electromagnet assembly comprising:

an electromagnet and

an electromagnet holder including

a component of a secondary locking system;

an armature assembly comprising:

an armature;

an armature holder including a

second component of the secondary

locking system;

a pivotal mounting for the armature

holder permitting pivotal movement

of the armature from a first position

to a second position;

spring means biasing the armature holder

toward the first position; and

means on the armature holder engagable

with the magnet holder for moving

the armature holder to its second

position whereby the armature contacts

25

the electromagnet when the armature
and electromagnet are in alignment;
the components of the secondary
locking system being positioned to
become operatively engaged when
sufficient shear force is applied
to cause the armature to move across
the face of the electromagnet while
the latter is energized.

5

2. The electromagnetic lock of Claim 1 further comprising
means on one of said assemblies for preventing operational engagement of
said secondary locking components when the shear forces acting across the
face of the electromagnet to defeat the lock do not exceed a predetermined
amount and which permits engagement of the secondary locking
components when the shear forces exceed the predetermined amount.
3. The electromagnetic lock of Claim 1 wherein:
said secondary locking system component on said electromagnet assembly is a
strike, and said secondary locking system component on said armature assembly is
a bolt.

4. The electromagnetic lock of Claim 2 wherein:
said secondary locking system component on said electromagnet assembly is a strike, and said secondary locking system component on said armature assembly is a bolt.
5. The electromagnetic lock of Claim 2 wherein:
the means for preventing and permitting engagement of said secondary locking components is a frangible member.
6. The electromagnetic lock of Claim 2 wherein:
the means for preventing and permitting engagement of said secondary locking components is a deformable member.
7. The electromagnetic lock of Claim 6 wherein:
said deformable member is elastic.

8. The electromagnetic lock of Claim 2 wherein:
the means for preventing and permitting engagement of said secondary locking components is a spring biased plunger positioned in said electromagnet assembly in the vicinity of the component of the secondary locking system on the electromagnet assembly.